

CMPSCI 520

Homework #6

Assigned: December 3, 2008

Due: December 19, 2008

1. Unit Testing
 - a. Big Bang, Top-Down, Bottom-Up, Threads and Critical Modules are integration testing strategies, which are applicable in OOA&D and why?
 - b. How are oracles and scaffolding used in Unit testing? In integration testing?

2. OOA&D Testing
 - a. What are the four primary issues in OO testing?
 - b. Discuss the difference between “white-box” and “black-box” testing and how each might apply to OO testing.

3. Coverage Testing
 - a. For the coverage metrics:
 - distinguish “all-paths” and “all-branches”
 - distinguish “all-uses” and “all-du-paths”
 - b. Briefly describe mutation analysis and discuss how it might be used as a coverage metric

4. Inspections, walkthroughs and code reading are forms of reviews.
 - a. Distinguish among these three techniques in terms of focus, number and type of persons involved, formality, and any other characteristic you feel is pertinent.
 - b. What are the primary advantages and disadvantages of reviews?
 - c. What are the two most important features of an effective inspection? Why?